U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

SEARCH REQUEST FORM

Request Name:	or's Audet, M.			Serial Number:	09/73	6076
Date: _	11-14-03	Phone: _	305.	5039	Art Unit:	1654

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevent citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevent claim(s).

Seg. 10s 15-19

STAFF USE ONLY

Date completed: 11-124-03	Search Site	Vendors
Searcher: Bower Ly @ 4994	STIC	Ki
Terminal time: 23	CM-1	STN
Elapsed time:	Pre-S	Dialog
CPU time:	Type of Search	APS
Total time:	N.A. Sequence	Geninfo
Number of Searches:	A.A. Sequence	SDC
Number of Databases:	Structure	DARC/Questel
	Bibliographic	Other CGN

Aud t, Maury

Subject:

09736076-Search of 5 Peptides

In the above application, please search the following 5 sequences: SEQ ID NOS: 15, 16, 17, 18, and 19 (including pending DB's RAPM, RAPN).

Thanks.

Maury

11284

703-305-5039.

13347677

FILE 'REGISTRY' ENTERED AT 14:26:52 ON 14 NOV 2003 31 S MLLG[KR] PPF | LGRPPFETS/SQSP

FILE 'HCAPLUS' ENTERED AT 14:28:05 ON 14 NOV 2003 L2 18 S L1

L2 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:765147 HCAPLUS

DOCUMENT NUMBER: 139:241380

TITLE: Expressed sequence tags from cDNA libraries

derived from human mRNAs having intact 5' ends

204 :

and their encoded secreted proteins

INVENTOR(S): Tanaka, Hiroaki; Dumas Milne, Edwards

Jean-Baptiste; Giordano, Jean-Yves; Jobert,

Severin; Bejanin, Stephane

PATENT ASSIGNEE(S): Genset, Fr.

SOURCE: Can. Pat. Appl.

Can. Pat. Appl., 163 pp.

CODEN: CPXXEB

DOCUMENT TYPE:

L1

Patent English

LANGUAGE: English FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
		-		
CA 2343602	AA	20011018	CA 2001-2343602	20010417
CA 2343602	AA	20011018	CA 2001-2343602	20010417
PRIORITY APPLN. INFO.	:		US 2000-197873P P	20000418
			CA 2001-2343602 A	20010417

The sequences of 5' ESTs and consensus contigated 5' ESTs derived from cDNA libraries derived from mRNAs having intact 5' ends are disclosed. The 5' ESTs and consensus contigated 5' ESTs may be used to obtain cDNAs and genomic DNAs corresponding to the 5' ESTs and consensus contigated 5' ESTs. The 5' ESTs and consensus contigated 5' ESTs may also be used in diagnostic, forensic, gene therapy, and chromosome mapping procedures. Upstream regulatory sequences may also be obtained using the 5' ESTs and consensus contigated 5' ESTs. The 5' ESTs and consensus contigated 5' ESTs may also be used to design expression vectors and secretion vectors. [This abstract record is one of thirteen records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IT 599342-26-4

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(amino acid sequence; expressed sequence tags from cDNA libraries derived from human mRNAs having intact 5' ends and their encoded secreted proteins)

L2 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:447168 HCAPLUS

DOCUMENT NUMBER: 139:227956

TITLE: Cell cycle dependent expression of Plk1 in

synchronized porcine fetal fibroblasts

AUTHOR(S):

Anger, Martin; Kues, Wilfried A.; Klima, Jiri;
Mielenz, Manfred; Kubelka, Michal: Motlik, Jan;

Mielenz, Manfred; Kubelka, Michal; Motlik, Jan; Esner, Milan; Dvorak, Petr; Carnwath, Joseph W.;

Niemann, Heiner

CORPORATE SOURCE: Institute of Animal Physiology and Genetics,

Libechov, Czech Rep.

SOURCE: Molecular Reproduction and Development (2003),

65(3), 245-253

CODEN: MREDEE; ISSN: 1040-452X

PUBLISHER: Wiley-Liss, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

Enzymes of the Polo-like kinase (Plk) family are active in the AB pathways controlling mitosis in several species. We have cloned cDNA fragments of the porcine homologs of Plk1, Plk2, and Plk3 employing fetal fibroblasts as source. All three partial cDNAs showed high sequence homol. with their mouse and human counterparts and contained the Polo box, a domain characteristic for all Polo kinases. The expression levels of Plk1 mRNA at various points of the cell cycle in synchronized porcine fetal fibroblasts were analyzed by both RT-PCR and the RNase protection assay. Plk1 mRNA was barely detectable in GO and Gl, increased during S phase and peaked after the G2/M transition. A monoclonal antibody was generated against an in vitro expressed porcine Plk1-protein fragment and used to detect changes in Plk1 expression at the protein level. Plk1 protein was first detected by immunoblotting at the beginning of S phase and was highest after the G2/M transition. In summary, the Plk1 expression pattern in the pig is similar to that reported for other species. The absence of Plk1 mRNA and protein appears to be a good marker for GO/G1 and thus for the selection of donor cells for nuclear transfer based somatic cloning.

IT 481546-49-0

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; cDNA sequences of Polo-like kinase (Plk1, Plk2, and Plk3) sequence homologs of pig and cell cycle dependent expression of Plk1 in synchronized porcine fetal fibroblasts)

REFERENCE COUNT:

THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:334543 HCAPLUS

DOCUMENT NUMBER: 138:350479

TITLE: Protein and cDNA sequences of human protein

kinase/protein phosphatase sequence homologs Ota, Toshio; Isogai, Takao; Nishikawa, Tetsuo;

INVENTOR(S): Ota, Toshio; Isogai, Takao; Nishikawa, '
Hayashi, Koji; Otsuka, Kaoru; Yamamoto,

Jun-ichi; Ishii, Shizuko; Sugiyama, Tomoyasu; Wakamatsu, Ai; Nagai, Keiichi; Otsuki, Tetsuji;

Funahashi, Shin-ichi; Senoo, Chiaki; Nezu,

Jun-ichi

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 113 pp., Cont.-in-part of

Appl. No. PCT/JP00/05060.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

APPLICATION NO.

DATE

DATE

KIND

PATENT NO.

ACCESSION NUMBER:

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US 2003082776
                            20030501
                                            US 2002-59585
                                                             20020129
                       A1
     JP 2002171977
                       A2
                             20020618
                                            JP 2000-196309
                                                             20000626
                            20010208
                                           WO 2000-JP5060
     WO 2001009345
                       A1
                                                             20000728
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
             TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
             BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                      WO 2000-JP5065
     WO 2001009319
                            20010208
                       A1
                                                             20000728
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
             TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
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     EP 1205549
                       A1
                            20020515
                                           EP 2000-948282
                                                             20000728
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
             PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
PRIORITY APPLN. INFO.:
                                        JP 1999-248036
                                                             19990729
                                                          Α
                                        US 1999-159590P
                                                             19991018
                                        JP 2000-118776
                                                             20000111
                                                          Α
                                        US 2000-183322P
                                                             20000217
                                        JP 2000-183767
                                                             20000502
                                                          Α
                                        WO 2000-JP5060
                                                          A2 20000728
                                        WO 2000-JP5065
     The invention provides protein and cDNA sequences of human proteins
AB
     having the kinase and/or phosphatase-like structure from clones
     which had been isolated and the structures thereof had been determined in
     the Helix Research Institute (helix clones; Japanese Patent
     Application Number 2000-183767) was conducted. Twelve novel genes were
     provided by carrying out homol. search for all the helix clones by
     using the amino acid sequences of known kinases and phosphatases as
               The genes are expected to be involved in intracellular
     signal transduction. The physiol. functions of the inventive genes
     can be tested by using reporter gene assay systems capable of
     detecting signal transduction. The proteins of the present
     invention are useful as target mols. in drug discovery and in the
     development of new pharmaceuticals.
     518362-19-1P
IT
     RL: BPN (Biosynthetic preparation); BSU (Biological study,
     unclassified); PRP (Properties); BIOL (Biological study); PREP
     (Preparation)
        (amino acid sequence; protein and cDNA sequences of human protein
        kinase/protein phosphatase sequence homologs)
                     HCAPLUS COPYRIGHT 2003 ACS on STN
L2
     ANSWER 4 OF 18
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Searcher: Shears 308-4994

2003:97986 HCAPLUS

DOCUMENT NUMBER: 138:147705

Protein and cDNA sequences of human protein TITLE:

kinase SAK and use in modulation of cellular

proliferation for treatment of cancer

Hitoshi, Yasumichi; Demo, Susan; Jenkins, Yonchu INVENTOR(S):

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA SOURCE: U.S. Pat. Appl. Publ., 41 pp.

CODEN: USXXCO

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	PATENT NO.		KI	ND	DATE			A	PPLI	CATI	ON NO	٥.	DATE			
	2003	 0277	56		- - 1	2003	0206			201	01-2	 6021		2001	1221	
	2003027756 2003012055				20030200		US 2001-26021 WO 2002-US2431									
	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	KZ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,
		NO,	NZ,	OM,	PH,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,
		TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,
		AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM							
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,
		BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,
		MC,	NL,	PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,
		GW,	ML,	MR,	NE,	SN,	TD,	TG								
PRIORIT	Y APP	LN.	INFO	. :				Į	US 20	001-3	30963	32P	P	2001	0801	
770 0001 00001 B 00011001																

US 2001-26021 A 20011221

The present invention relates to regulation of cellular AB proliferation. More particularly, the present invention is directed to nucleic acids encoding SAK, which is a protein kinase involved in modulation of cellular proliferation and cell cycle regulation. The invention further relates to methods for identifying and using agents, including small mol. chemical compns., antibodies, peptides, cyclic peptides, nucleic acids, RNAi, antisense nucleic acids, and ribozymes, that modulate cell cycle regulation and cellular proliferation via modulation of SAK; as well as to the use of expression profiles and compns. in diagnosis and therapy related to cell cycle regulation and modulation of cellular proliferation, e.g., for treatment of cancer and other diseases of cellular proliferation.

496831-29-9 IT

RL: PRP (Properties)

(unclaimed sequence; protein and cDNA sequences of human protein kinase SAK and use in modulation of cellular proliferation for treatment of cancer)

HCAPLUS COPYRIGHT 2003 ACS on STN L2ANSWER 5 OF 18

ACCESSION NUMBER: 2003:55959 HCAPLUS

DOCUMENT NUMBER: 138:84325

TITLE: Generation and initial analysis of more than

15,000 full-length human and mouse cDNA

sequences

Strausberg, Robert L.; Feingold, Elise A.; AUTHOR(S):

> Grouse, Lynette H.; Derge, Jeffery G.; Klausner, Richard D.; Collins, Francis S.; Wagner, Lukas;

Searcher: 308-4994 Shears

Shenmen, Carolyn M.; Schuler, Gregory D.; Altschul, Stephen F.; Zeeberg, Barry; Buetow, Kenneth H.; Schaefer, Carl F.; Bhat, Narayan K.; Hopkins, Ralph F.; Jordan, Heather; Moore, Troy; Max, Steve I.; Wang, Jun; Hsieh, Florence; Diatchenko, Luda; Marusina, Kate; Farmer, Andrew A.; Rubin, Gerald M.; Hong, Ling; Stapleton, Mark; Soares, M. Bento; Bonaldo, Maria F.; Casavant, Tom L.; Scheetz, Todd E.; Brownstein, Michael J.; Usdin, Ted B.; Toshiyuki, Shiraki; Carninci, Piero; Prange, Christa; Raha, Sam S.; Loquellano, Naomi A.; Peters, Garrick J.; Abramson, Rick D.; Mullahy, Sara J.; Bosak, Stephanie A.; McEwan, Paul J.; McKernan, Kevin J.; Malek, Joel A.; Gunaratne, Preethi H.; Richards, Stephen; Worley, Kim C.; Hale, Sarah; Garcia, Angela M.; Gay, Laura J.; Hulyk, Stephen W.; Villalon, Debbie K.; Muzny, Donna M.; Sodergren, Erica J.; Lu, Xiuhua; Gibbs, Richard A.; Fahey, Jessica; Helton, Erin; Ketteman, Mark; Madan, Anuradha; Rodrigues, Stephanie; Sanchez, Amy; Whiting, Michelle; Madan, Anup; Young, Alice C.; Shevchenko, Yuriy; Bouffard, Gerard G.; Blakesley, Robert W.; Touchman, Jeffrey W.; Green, Eric D.; Dickson, Mark C.; Rodriguez, Alex C.; Grimwood, Jane; Schmutz, Jeremy; Myers, Richard M.; Butterfield, Yaron S. N.; Krzywinski, Martin I.; Skalska, Ursula; Smailus, Duane E.; Schnerch, Angelique; Schein, Jacqueline E.; Jones, Steven J. M.; Marra, Marco

CORPORATE SOURCE:

SOURCE:

National Cancer Institute, NIH, Bethesda, MD, 20892-2580, USA

Proceedings of the National Academy of Sciences of the United States of America (2002), 99(26),

16899-16903

CODEN: PNASA6; ISSN: 0027-8424 National Academy of Sciences

DOCUMENT TYPE: LANGUAGE:

PUBLISHER:

Journal English

The National Institutes of Health Mammalian Gene Collection (MGC) Program is a multiinstitutional effort to identify and sequence a cDNA clone containing a complete ORF for each human and mouse gene. ESTs were generated from libraries enriched for full-length cDNAs and analyzed to identify candidate full-ORF clones, which then were sequenced to high accuracy. The MGC has currently sequenced and verified the full ORF for a nonredundant set of >9000 human and >6000 mouse genes. Candidate full-ORF clones for an addnl. 7800 human and 3500 mouse genes also have been identified. All MGC sequences and clones are available without restriction through public databases and clone distribution networks. [This abstract record is one of eleven records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IT 483718-42-9

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; generation and initial anal. of more than

15,000 full-length human and mouse cDNA sequences)

L2 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:55946 HCAPLUS

DOCUMENT NUMBER: 138:84320

TITLE: Generation and initial analysis of more than

15,000 full-length human and mouse cDNA

sequences

AUTHOR(S): Strausberg, Robert L.; Feingold, Elise A.;

Richard D.; Collins, Francis S.; Wagner, Lukas; Shenmen, Carolyn M.; Schuler, Gregory D.; Altschul, Stephen F.; Zeeberg, Barry; Buetow, Kenneth H.; Schaefer, Carl F.; Bhat, Narayan K.; Hopkins, Ralph F.; Jordan, Heather; Moore, Troy; Max, Steve I.; Wang, Jun; Hsieh, Florence; Diatchenko, Luda; Marusina, Kate; Farmer, Andrew A.; Rubin, Gerald M.; Hong, Ling; Stapleton, Mark; Soares, M. Bento; Bonaldo, Maria F.; Casavant, Tom L.; Scheetz, Todd E.; Brownstein, Michael J.; Usdin, Ted B.; Toshiyuki, Shiraki; Carningi, Piero: Prance, Christa: Paha, Sam S.

Grouse, Lynette H.; Derge, Jeffery G.; Klausner,

Carninci, Piero; Prange, Christa; Raha, Sam S.; Loquellano, Naomi A.; Peters, Garrick J.; Abramson, Rick D.; Mullahy, Sara J.; Bosak, Stephanie A.; McEwan, Paul J.; McKernan, Kevin J.; Malek, Joel A.; Gunaratne, Preethi H.; Richards, Stephen; Worley, Kim C.; Hale, Sarah; Garcia, Angela M.; Gay, Laura J.; Hulyk, Stephen

W.; Villalon, Debbie K.; Muzny, Donna M.; Sodergren, Erica J.; Lu, Xiuhua; Gibbs, Richard A.; Fahey, Jessica; Helton, Erin; Ketteman, Mark; Madan, Anuradha; Rodrigues, Stephanie; Sanchez, Amy; Whiting, Michelle; Madan, Anup; Young, Alice C.; Shevchenko, Yuriy; Bouffard, Gerard G.; Blakesley, Robert W.; Touchman, Jeffrey W.; Green, Eric D.; Dickson, Mark C.;

Rodriguez, Alex C.; Grimwood, Jane; Schmutz, Jeremy; Myers, Richard M.; Butterfield, Yaron S. N.; Krzywinski, Martin I.; Skalska, Ursula; Smailus, Duane E.; Schnerch, Angelique; Schein, Jacqueline E.; Jones, Steven J. M.; Marra, Marco

Α.

CORPORATE SOURCE: Mammalian Gene Collection (MGC) Program Team,

National Cancer Institute, NIH, Bethesda, MD,

20892-2580, USA

SOURCE: Proceedings of the National Academy of Sciences

of the United States of America (2002), 99(26),

16899-16903

CODEN: PNASA6; ISSN: 0027-8424 National Academy of Sciences

PUBLISHER: National DOCUMENT TYPE: Journal English

The National Institutes of Health Mammalian Gene Collection (MGC) Program is a multiinstitutional effort to identify and sequence a cDNA clone containing a complete ORF for each human and mouse gene. ESTs were generated from libraries enriched for full-length cDNAs and analyzed to identify candidate full-ORF clones, which then were sequenced to high accuracy. The MGC has currently sequenced and

verified the full ORF for a nonredundant set of >9000 human and >6000 mouse genes. Candidate full-ORF clones for an addnl. 7800 human and 3500 mouse genes also have been identified. All MGC sequences and clones are available without restriction through public databases and clone distribution networks. [This abstract record is one of eleven records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IΤ 480062-88-2

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; generation and initial anal. of more than 15,000 full-length human and mouse cDNA sequences)

ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN L2

2002:889007 HCAPLUS ACCESSION NUMBER:

KIND

DOCUMENT NUMBER: 138:347

Sequences of genetic markers for evaluating TITLE:

estrogenic activity

Barbosa, Miguel S.; Brady, Helen A.; Chan, Kyle INVENTOR(S):

W. H.; Pardinas, Jose R.

DATE

APPLICATION NO.

PATENT ASSIGNEE(S): Signal Pharmaceuticals, Inc., USA

DATE

PCT Int. Appl., 84 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. WO 2002093124 20020510 A2 20021121 WO 2002-US14597 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2003054332 20030320 US 2001-853544 20010510 Al US 2001-853544 A 20010510 PRIORITY APPLN. INFO.: Methods are provided for evaluating estrogenic and antiestrogenic effects of candidate therapeutic agents. Such methods are generally based on assays to detect modulation of estrogen-regulated marker expression in one or more specific cell types. Agents identified using such methods may be used, for example, in the prevention and treatment of diseases such as osteoporosis, cardiovascular disease and cancer. In addition, the gene discovery approaches discussed have identified a using gene profile for estrogen regulation in vascular endothelial cells. This gene profile will allow characterization of the effects of potential SERMs in the cardiovascular system this gene profile and the assays established with these genes will enable more extensive evaluation of tissue specific properties of SERM compds. and provide a better understanding of cardiovascular effects

of SERMs.

IT 402712-46-3

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; sequences of genetic markers for evaluating estrogenic activity)

L2 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:616256 HCAPLUS

DOCUMENT NUMBER: 137:181594

TITLE: Dominant-negative variants of human protein

kinases that inhibit the phosphorylation activity of their active enzyme isoforms

INVENTOR(S): Levine, Zurit; Bernstein, Jeanne

PATENT ASSIGNEE(S): Compugen Ltd., Israel

SOURCE: U.S. Pat. Appl. Publ., 170 pp., Cont.-in-part of

U.S. Ser. No. 724,676.

CODEN: USXXCO

DOCUMENT TYPE:

Patent English

LANGUAGE: E
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2002110811 A1 20020815 US 2001-771161 20010126

PRIORITY APPLN. INFO.: IL 2000-135619 A 20000512

IL 2000-136776 A 20000615

US 2000-724676 A2 20001128

The present invention concerns 91 nucleic acid sequences and amino acid sequences of variants of various human kinases, i.e. of sequences which inhibit activity of kinases in a dominant manner. The variants lack a domain or region required for phosphorylation, and thus may be dominant-neg. kinases obtained by alternative splicing of known original sequences of the kinase genes. The novel dominant-neg. kinase variants of the invention are not merely artificially truncated forms, fragments or mutations of known genes, but rather novel sequences which naturally occur within the body of individuals. The invention also concerns pharmaceutical compns. and detection methods using these sequences.

IT 449226-29-3

RL: PRP (Properties)

(unclaimed protein sequence; dominant-neg. variants of human protein kinases that inhibit the phosphorylation activity of their active enzyme isoforms)

L2 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:521988 HCAPLUS

DOCUMENT NUMBER: 137:74472

TITLE: Human cDNAs for NF-kB activating proteins

INVENTOR(S): Matsuda, Akio; Honda, Goichi; Muramatsu, Shuji;

Nagano, Yukiko

PATENT ASSIGNEE(S): Asahi Kasei Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 841 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

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PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
                                                             DATE
                                            WO 2001-JP11389
     WO 2002053737
                            20020711
                                                             20011225
                       A1
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
             NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
             CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
             SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
                                                             20011225
     EP 1354950
                       Al
                            20031022
                                            EP 2001-272530
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
             PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     US 2003170719
                       A1
                            20030911
                                            US 2002-42211
                                                             20020107
PRIORITY APPLN. INFO.:
                                         JP 2000-402288
                                                             20001228
                                         JP 2001-88912
                                                             20010326
                                         JP 2001-254018
                                                             20010824
                                                          Α
                                         US 2000-258315P
                                                             20001228
                                         US 2001-278640P
                                                          Ρ
                                                             20010326
                                         US 2001-314385P
                                                          Þ
                                                             20010824
                                                          A2 20011221
                                         US 2001-24298
                                        WO 2001-JP11389
                                                          W
                                                             20011225
    Novel human proteins having an NF-kB activating effect, cDNAs,
AΒ
     recombinant expression, use in diagnosis and drug screening, are
                 Use of antibodies, ribozymes, or antisense
     oligonucleotides for those cDNAs and proteins for treatment of
     inflammation, autoimmune disease, infection, cancer, bone disease,
     AIDS, neurodegenerative disease, or ischemic disease, is claimed.
     From a cDNA library prepared from human lung fibroblasts, cDNAs
     encoding proteins having an effect of activating NF-kB were cloned
    and their DNA and amino acid sequence deduced therefrom were determined
    440684-40-2P, Protein (human NF-kB activating)
ΙT
    RL: ARU (Analytical role, unclassified); BPN (Biosynthetic
    preparation); BUU (Biological use, unclassified); DGN (Diagnostic
    use); ANST (Analytical study); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (amino acid sequence; human cDNAs for NF-kB activating proteins)
                               THERE ARE 10 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                         10
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
    ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN
L2
ACCESSION NUMBER:
                         2002:509654 HCAPLUS
                           Correction of: 2002:10496
                         137:58696
DOCUMENT NUMBER:
                           Correction of: 136:49428
TITLE:
                         Human nucleic acids and their encoded proteins
                         and antibodies for the diagnosis and therapy of
                         ovarian cancer
                         Birse, Charles E.; Rosen, Craig A.
INVENTOR(S):
                         Human Genome Sciences, Inc., USA
PATENT ASSIGNEE(S):
SOURCE:
                         PCT Int. Appl., 2922 pp.
```

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 91

PATENT INFORMATION:

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PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                                                             DATE
                            20020103
     WO 2002000677
                       A1
                                           WO 2001-US18569
                                                             20010607
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO,
             NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ,
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD,
             ΤG
                            20010820
     AU 2001041411
                       A5
                                           AU 2001-41411
                                                             20010208
                                        US 2000-209467P P
                                                            20000607
PRIORITY APPLN. INFO.:
                                        US 2000-241221P P
                                                            20001020
                                        US 2000-241786P P 20001020
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The present invention relates to novel ovarian cancer-related AB polynucleotides and the polypeptides encoded by these polynucleotides herein collectively known as "ovarian cancer antigens", and the use of such antigens for detecting disorders of the ovary, particularly the presence of ovarian cancer and ovarian cancer metastases. More specifically, 2185 isolated ovarian cancer-associated cDNA mols. are provided encoding novel polypeptides: Novel ovarian cancer polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human ovarian cancer-associated polynucleotides and/or polypeptides. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the ovary, including ovarian cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The present invention further relates to methods and/or compns. for inhibiting the production and function of the polypeptides of the present invention. The Sequence Listing was provided as an electronic file, but was not made available in the release of this patent.

IT 439729-90-5P

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(amino acid sequence; human nucleic acids and their encoded proteins and antibodies for the diagnosis and therapy of ovarian cancer)

L2 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:315483 HCAPLUS

DOCUMENT NUMBER: 136:335268

TITLE: Short peptides which selectively modulate the

activity of serine/threonine kinases

INVENTOR(S): Ben-sasson, Shmuel A.

PATENT ASSIGNEE(S): The Children's Medical Center Corp., USA

SOURCE: U.S. Pat. Appl. Publ., 41 pp., Cont.-in-part of

U. S. 6,174,993.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
US 2002049301	A1	20020425	US 2000-736076	20001213		
US <u>617499</u> 3	B1	20010116	US 1997-861338	19970521		
PRIORITY APPLN. INFO.	:	US	1997-861338 A2	19970521		
OTHER COHREELS).	MA	DDAT 126.225260				

OTHER SOURCE(S): MARPAT 136:335268

AB Peptides are disclosed which are peptide derivs. of the HJ loop of a serine/threonine kinase. The peptides can modulate the activity of the serine/threonine kinase. Also disclosed are methods of modulating the activity of a serine/threonine kinase in a subject by administering one of the peptides of the invention. The peptides can be used for the treatment of a wide variety of diseases.

IT 216489-73-5P 216489-75-7P - 16

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(peptide modulators of serine/threonine kinases)

IT 416847-00-2 416847-01-3 416847-41-1

#16847-48-8

RI: PRP (Properties)

(unclaimed sequence; short peptides which selectively modulate the activity of serine/threonine kinases)

L2 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:746842 HCAPLUS

DOCUMENT NUMBER: 136:51338

TITLE: Cloning and characterization of Plx2 and Plx3,

two additional polo-like kinases from Xenopus

laevis

AUTHOR(S): Duncan, Peter I.; Pollet, Nicolas; Niehrs,

Christof; Nigg, Erich A.

CORPORATE SOURCE: Department of Cell Biology, Max Planck Institute

for Biochemistry, Martinsried, D-82152, Germany

SOURCE: Experimental Cell Research (2001), 270(1), 78-87

CODEN: ECREAL; ISSN: 0014-4827

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal LANGUAGE: English

Members of the family of Polo-like kinases are implicated in the regulation of cell cycle progression in all eukaryotes. In Xenopus laevis, only 1 member of this family, Plx1, has previously been described. Here we report the cloning and characterization of X. laevis Plx2 and Plx3, the likely homologs of mammalian Plk2 (Snk) and Plk3 (Fnk/Prk), resp. RNA expression studies indicate that all 3 Xenopus Plks are present in both oocytes and unfertilized eggs. Further anal. by in situ hybridization revealed that Plx1 RNA is ubiquitously expressed in early embryos, but shows more restricted

expression at later stages. In contrast, Plx2 and Plx3 expression is highly restricted in both early and late-stage embryos. Using Plx-specific antisera, Plx1 and Plx3 polypeptides could readily be detected on immunoblots of oocyte and egg exts. Both Plx1 and Plx3 protein levels remained virtually constant during oocyte maturation. However, whereas Plx1 is more active in M phase than in I phase, Plx3 protein and activity levels remained constant upon release of meiotic metaphase II-arrested egg exts. into interphase. Finally, microinjection of in vitro-transcribed RNAs for Plx1, Plx2, and Plx3 increased the rate of progesterone-induced oocyte maturation, and concomitantly, all 3 kinases became activated. Conversely, overexpression of the corresponding catalytically inactive kinases delayed maturation. This suggests that, at least in oocytes, all 3 kinases may be regulated by similar mechanisms, and they may also share common substrates. However, the strikingly restricted pattern of expression of Plx2 and Plx3 observed in embryos strongly suggests that individual Plk family members perform at least partly distinct functions at later stages of development. (c) 2001 Academic Press.

IT382721-00-8

> RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; cloning and characterization of two addnl. polo-like kinases from frog eggs and embryos)

REFERENCE COUNT:

THERE ARE 34 CITED REFERENCES AVAILABLE 34 FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

2001:629826 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

136:211644

Identification of the human homologue of the TITLE:

early-growth response gene Snk, encoding a

serum-inducible kinase

AUTHOR (S): Liby, Karen; Wu, Huiyun; Ouyang, Bin; Wu,

Shecao; Chen, Jie; Dai, Wei

Department of Cell Biology, University of CORPORATE SOURCE:

Cincinnati College of Medicine, USA DNA Sequence (2001), 11(6), 527-533

SOURCE: CODEN: DNSEES; ISSN: 1042-5179

Harwood Academic Publishers PUBLISHER:

Journal DOCUMENT TYPE: English LANGUAGE:

Murine serum inducible kinase (mSnk) was recently cloned and ABcharacterized as an early-growth response gene involved in cell proliferation. Here we report the isolation and characterization of its human homolog, named hSnk. Sequence comparison shows that hSnk is highly conserved and its deduced protein sequence shares a significant amino acid identity with mSnk and rSnk proteins, as well as with other polo family kinase gene products. A survey of hSnk expression reveals that while a wide variety of human tissues express a low to moderate level of hSnk transcripts, fetal tissues, testis, and spleen express the most abundant hSnk transcripts. addition, serum stimulation rapidly induces hSnk expression in fibroblast cells, reaching the peak level of induction within one hour post treatment. Considering that Plk and Prk, two other known human polo-family kinases, control cell cycle checkpoint and cell cycle progression, our current observations suggest that hSnk may also play an important role in cells undergoing rapid cell division

> 308-4994 Searcher: Shears

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or having a high mitotic index.
ΙT
     402712-46-3
     RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (amino acid sequence; identification of the human homolog of the
        early-growth response gene Snk, encoding a serum-inducible
        kinase)
                         13
                               THERE ARE 13 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
                      HCAPLUS
L2
     ANSWER 14 OF 18
                               COPYRIGHT 2003 ACS on STN
                         2001:106056 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         134:188986
                         Human expressed sequence tags and primers for
TITLE:
                         synthesizing full-length cDNAs
                         Ota, Toshio; Isogai, Takao; Nishikawa, Tetsuo;
INVENTOR(S):
                         Hayashi, Kohji; Saito, Kaoru; Yamamoto, Junichi;
                         Ishii, Shizuko; Sugiyama, Tomoyasu; Wakamatsu,
                         Ai; Nagai, Keiichi; Otsuki, Tetsuji
                         Helix Research Institute, Japan
PATENT ASSIGNEE(S):
                         Eur. Pat. Appl., 2527 pp.
SOURCE:
                         CODEN: EPXXDW
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
                         12
PATENT INFORMATION:
                      KIND
                            DATE
                                           APPLICATION NO.
                                                             DATE
     PATENT NO.
                       A2
                                           EP 2000-116126
                                                             20000728
                            20010207
     EP 1074617
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
             PT, IE, SI, LT, LV, FI, RO
                                                             20000626
                       A2
                            20020618
                                           JP 2000-196309
     JP 2002171977
     EP 1205549
                            20020515
                                           EP 2000-948282
                                                             20000728
                       A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
             PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
                            20020709
                                           JP 2000-280990
                                                             20000728
     JP 2002191363
                       A2
                                                         A 19990729
                                        JP 1999-248036
PRIORITY APPLN. INFO.:
                                        JP 1999-300253
                                                         A 19990827
                                        JP 2000-118776
                                                            20000111
                                        JP 2000-183767
                                                         A 20000502
                                        JP 2000-241899
                                                         A 20000609
                                        US 1999-159590P P
                                                            19991018
                                        US 2000-183322P P
                                                             20000217
                                        WO 2000-JP5065
                                                         W 20000728
     Primers for synthesizing full-length cDNAs and their use are
AB
     provided. The invention provides 5'-end sequences for 5602 partial
     cDNA sequences (expressed sequence tags, ESTs) and 3'-end sequences
     for 4970 of these clones. Furthermore, primers for synthesizing the
     full-length cDNA have been provided to clarify the function of the
     protein encoded by the cDNA. The full-length cDNA sequences s of
     the present invention containing the translation start site provides
     information useful for analyzing the functions of the proteins.
     Tissue- and cell-specific expression patterns are also provided.
     [This abstract record is one of 6 records for this patent necessitated
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Searcher: Shears 308-4994

by the large number of index entries required to fully index the

document and publication system constraints.].

326937-52-4, Protein (human clone PLACE1011923) ΙT RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (amino acid sequence; human expressed sequence tags and primers for synthesizing full-length cDNAs) ANSWER 15 OF 18 L2HCAPLUS COPYRIGHT 2003 ACS on STN 1999:139942 HCAPLUS ACCESSION NUMBER: 130:192783 DOCUMENT NUMBER: Cloning and cDNA sequence of human TITLE: serum-inducible kinase Snk Anderson, Karen M.; Jackson, Jeffrey R.; INVENTOR(S): Hansbury, Michael J.; Nerurkar, Sandhya S.; Roshak, Amy K.; Bouzyk, Mark Smithkline Beecham Corporation, USA PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 43 pp. CODEN: PIXXD2 Patent DOCUMENT TYPE: English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: DATE APPLICATION NO. PATENT NO. KIND DATE 19990225 WO 1998-US17248 19980820 WO 9909146 **A**1 W: CA, JP RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE US 1998-136282 19980820 20000516 US 6063609 Α EP 1998-942152 EP 1007645 20000614 19980820 Al R: BE, CH, DE, DK, FR, GB, IT, LI, NL 19980820 JP 2001514882 T2 20010918 JP 2000-509813 US 6245544 US 2000-505744 20000216 В1 20010612 US 1997-56112P 19970820 PRIORITY APPLN. INFO.: US 1998-136282 A3 19980820 WO 1998-US17248 W 19980820 The serum-inducible kinase (Snk) polypeptides and polynucleotides AΒ and methods for producing such polypeptides by recombinant techniques are disclosed. The nucleotide sequence of human Snk is a cDNA sequence and comprises an open reading frame encoding a polypeptide of 685 amino acids that is structurally related to other proteins of the Polo-like kinase family and having homol. and/or structural similarity with murine serum-inducible kinase. The gene of the present invention maps to human chromosome 5d12.1-q13.2/D5S491-D5S427. Also disclosed are methods for utilizing Serum Inducible Kinase (Snk) polypeptides and polynucleotides in therapy, and diagnostic assays for such. 220748-32-3P ITRL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (amino acid sequence; cloning and cDNA sequence of human serum-inducible kinase Snk) THERE ARE 2 CITED REFERENCES AVAILABLE FOR 2 REFERENCE COUNT: THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

> Searcher : Shears 308-4994

L2

09/736076 ACCESSION NUMBER: 1999:9924 HCAPLUS 130:77973 DOCUMENT NUMBER: Disease associated protein kinases of human and TITLE: their cDNA sequences Bandman, Olga; Hillman, Jennifer L.; Corley, INVENTOR(S): Neil C.; Guegler, Karl J.; Lal, Preeti; Goli, Surya K.; Shah, Purvi Incyte Pharmaceuticals, Inc., USA PATENT ASSIGNEE(S): PCT Int. Appl., 93 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE 19981223 WO 9858052 WO 1998-US12813 19980619 A2 **A**3 WO 9858052 19990610 AT, AU, BR, CA, CH, CN, DE, DK, ES, FI, GB, IL, JP, KR, MX, NO, NZ, RU, SE, SG, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG US 5885803 Α 19990323 US 1997-878989 19970619 19980619 AU 9881547 A1 19990104 AU 1998-81547 20000614 EP 1998-931407 19980619 EP 1007692 A2 BE, DE, ES, FR, GB, IT, NL

US 1999-272796 19990319 US 6207148 20010327 B1US 2003170219 20030911 US 2001-769970 20010124 A1 A2 19970619 PRIORITY APPLN. INFO.: US 1997-878989 WO 1998-US12813 19980619 W US 1999-272796 A3 19990319

The invention provides human disease associated protein kinases and AB polynucleotides (collectively designated DAPK) which identify and encode them. The invention also provides expression vectors, host cells, agonists, antibodies and antagonists. The invention further provides methods for diagnosing and treating disorders associated with expression of human disease associated protein kinases. The amino acid sequences and cDNA sequences of some human disease-associated protein kinases are presented.

218611-29-1 IT

RL: ANT (Analyte); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(amino acid sequence; disease associated protein kinases of human and their cDNA sequences)

L2ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2003 ACS on STN

1998:790656 HCAPLUS ACCESSION NUMBER:

130:22236 DOCUMENT NUMBER:

Short peptides which selectively modulate the TITLE:

activity of serine/threonine kinases

Ben-Sasson, Shmuel A. INVENTOR(S):

The Children's Medical Center Corp., USA; Yissum PATENT ASSIGNEE(S):

Research Development Company of the Hebrew

PCT Int. Appl., 70 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

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PATENT NO.
                            DATE
                                            APPLICATION NO.
                                                              DATE
                      KIND
                       A2
                                            WO 1998-US10319
     WO 9853050
                             19981126
                                                              19980520
     WO 9853050
                       Α3
                             19990225
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,
             TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
                            20010116
     US 6174993
                                          US 1997-861338
                       В1
                                                              19970521
                                            AU 1998-75833
     AU 9875833
                       A1
                            19981211
                                                              19980520
                       B2
                            20010621
     AU 734642
     EP 983346
                       A2
                             20000308
                                            EP 1998-923571
                                                              19980520
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
             PT, IE, SI, LT, LV, FI, RO
                       T2
                                            JP 1998-550580
                                                              19980520
     JP 2002500649
                             20020108
                            20020307
     US 2002028772
                       Α1
                                            US 2000-735274
                                                              20001211
                            20030102
     US 2003004103
                       Al
                                            US 2001-12035
                                                              20011211
PRIORITY APPLN. INFO.:
                                         US 1997-861338
                                                          A2 19970521
                                         WO 1998-US10319
                                                             19980520
                                                          W
                                                          A2 20001211
                                         US 2000-735274
```

Disclosed are peptides which are peptide derivs. of the HJ loop of a AB serine/threonine kinase. Modified peptides derivs. are provided from the modified sequence or subsequence of the HJ loop of such kinases as RAF, cAMP-dependent kinase, protein kinase C, the G protein-coupled receptor kinases β ARK1, β BARK2, GRK1 and GRKs4-6, calmodulin-dependent kinase, and Polo. The peptides can modulate the activity of the serine/threonine kinase. For example, peptide derivs. of the HJ loop of Raf and Polo inhibit the proliferation of bovine aortic cells and the transformed mouse cell lines MS1 and/or SVR cells in vitro at concns. as low as 10 μM . Further examples include (1) inhibition of the production of collagen by fetal lung fibroblasts by an HJ peptide deriv of activin/TGF β R and (2) morphol. changes in B16 melanoma cells by an HJ peptide derivative of integrin-linked kinase ILK. Also disclosed are methods of modulating the activity of a serine/threonine kinase in a subject by administering one of the peptides of the present invention.

IT 216489-73-5 216489-75-7 216489-77-9 216489-79-1 216489-81-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(Polo kinase-derived; short peptides which selectively modulate the activity of serine/threonine kinases)

IT 216490-49-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(SNK kinase-derived; short peptides which selectively modulate

the activity of serine/threonine kinases)

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HCAPLUS COPYRIGHT 2003 ACS on STN
L2
     ANSWER 18 OF 18
ACCESSION NUMBER:
                         1993:444118 HCAPLUS
                         119:44118
DOCUMENT NUMBER:
                         Identification of an early-growth-response gene
TITLE:
                         encoding a novel putative protein kinase
                         Simmons, Daniel L.; Neel, Benjamin G.; Stevens,
AUTHOR(S):
                         Ryan; Evett, Gary; Erikson, Raymond L.
                         Dep. Chem., Brigham Young Univ., Provo, UT,
CORPORATE SOURCE:
                         84602, USA
                         Molecular and Cellular Biology (1992), 12(9),
SOURCE:
                         4164-9
                         CODEN: MCEBD4; ISSN: 0270-7306
DOCUMENT TYPE:
                         Journal
                         English
LANGUAGE:
     Early-growth-response genes, also known as immediate-early genes,
AB
     play important roles in regulating cell proliferation. A new type
     of early-growth-response gene product, a 77,811-Da putative
     serine/threonine kinase, was identified which is highly inducible by
     serum and phorbol ester. MRNA encoding this putative kinase is
     markedly elevated within 1 h after treatment with mitogen, and this
     induction is synergistically increased by cycloheximide.
     Dexamethasone blocks serum induction of the kinase mRNA, as does
     transformation by v-Ki-ras. The kinase mRNA was detected in mouse
     brain, lung, and heart. This new putative kinase, called Snk, for
     serum-inducible kinase, showed similarity in its proposed catalytic
     domain to many other protein kinases; however, no other kinase
     showed enough sequence similarity with Snk to suggest the existence
     of a common function. Hence, Snk represents a new type of protein
     kinase involved in the early mitogenic response whose activity is
     transcriptionally and posttranscriptionally regulated.
     148466-70-0
IT
     RL: PRP (Properties); BIOL (Biological study)
        (amino acid sequence of, complete)
E1 THROUGH E25 ASSIGNED
     FILE 'REGISTRY' ENTERED AT 14:29:04 ON 14 NOV 2003
L3
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                216489-75-7/BI OR 402712-46-3/BI OR 148466-70-0/BI OR
                216489-77-9/BI OR 216489-79-1/BI OR 216489-81-5/BI OR
                216490-49-2/BI OR 218611-29-1/BI OR 220748-32-3/BI OR
                326937-52-4/BI OR 382721-00-8/BI OR 416847-00-2/BI OR
                416847-01-3/BI OR 416847-41-1/BI OR 416847-48-8/BI OR
                439729-90-5/BI OR 440684-40-2/BI OR 449226-29-3/BI OR
                480062-88-2/BI OR 481546-49-0/BI OR 483718-42-9/BI OR
                496831-29-9/BI OR 518362-19-1/BI OR 599342-26-4/BI)
            25 L1 AND L3
L4
    ANSWER 1 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
RN
     599342-26-4 REGISTRY
     Protein (human clone CA2343602-SEQID-15222 N-terminal fragment)
CN
     (9CI) (CA INDEX NAME)
OTHER NAMES:
     3220: PN: CA2343602 SEQID: 15222 claimed protein
CN
CI
     MAN
```

SQL 90 1 MELKVGDFGL AARLEPLEHR RRTICGTPNY LSPEVLXKXG HGCESXIWAL SEQ 51 GCVMYTMLLG RPPFETTKSQ RNLQVHKGNN VYNAILIAGS ==== ==== HITS AT: 57 - 64REFERENCE 1: 139:241380 ANSWER 2 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN L4**518362-19-1** REGISTRY RN Protein (human clone C-PLACE1011923 protein kinase/protein CN phosphatase sequence homolog) (9CI) (CA INDEX NAME) OTHER NAMES: 14: PN: US20030082776 SEQID: 14 claimed protein CN CI MAN SQL 469 SEQ 1 MELKVGDFGL AARLEPLEHR RRTICGTPNY LSPEVLNKQG HGCESDIWAL 51 GCVMYTMLLG RPPFETTNLK ETYRCIREAR YTMPSSLLAP AKHLIASMLS 101 KNPEDRPSLD DIIRHDFFLQ GFTPDRLSSS CCHTVPDFHL SSPAKNFFKK 151 AAAALFGGKK DKARYIDTHN RVSKEDEDIY KLRHDLKKTS ITQQPSKHRT 201 DEELQPPTTT VARSGTPAVE NKQQIGDAIR MIVRGTLGSC SSSSECLEDS 251 TMGSVADTVA RVLRGCLENM PEADCIPKEQ LSTSFQWVTK WVDYSNKYGF 301 GYQLSDHTVG VLFNNGAHMS LLPDKKTVHY YAELGQCSVF PATDAPEQFI 351 SQVTVLKYFS HYMEENLMDG GDLPSVTDIR RPRLYLLQWL KSDKALMMLF 401 NDGTFQVNFY HDHTKIIICS QNEEYLLTYI NEDRISTTFR LTTLLMSGCS 451 SELKNRMEYA LNMLLQRCN HITS AT: 57-64 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** REFERENCE 1: 138:350479 ANSWER 3 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN L4RN **496831-29-9** REGISTRY 5: PN: US20030027756 FIGURE: 2 unclaimed sequence (9CI) (CA INDEX CN NAME) CI MAN SQL 400 SEQ 1 MELLRTITYO PAASTKMCEO ALGKGCGGDS KKKRPPOPPE ESOPPOSQAO 51 VPPAAPHHHH HHSHSGPEIS RIIVDPTTGK RYCRGKVLGK GGFAKCYEMT 101 DLTNNKVYAA KIIPHSRVAK PHOREKIDKE IELHRILHHK HVVQFYHYFE 151 DKENIYILLE YCSRRSMAHI LKARKVLTEP EVRYYLROIV SGLKYLHEOE 201 ILHRDLKLGN FFINEAMELK VGDFGLAARL EPLEHRRRTI CGTPNYLSPE 251 VLNKQGHGCE SDIWALGCVM YTMLLGRPPF ETTNLKETYR CIREARYTMP 301 SSLLAPAKHL IASMLSKNPE DRPSLDDIIR HDFFLOGFYP DRLSSSCCHT 351 VPDFWLSSPA KNFFKKAAAA LFGGKKDKAR YIDTHNRVSK EDEDIYKLRH HITS AT: 273-280 REFERENCE 1: 138:147705 L4ANSWER 4 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN **483718-42-9** REGISTRY RN Serum-inducible kinase (mouse strain FVB/N clone MGC:7061 CN

7

```
IMAGE: 3156743) (9CI) (CA INDEX NAME)
OTHER NAMES:
     GenBank AAH34513
CN
CN
     GenBank AAH34513 (Translated from: GenBank BC034513)
CI
     MAN
SQL
    682
SEQ
         1 MELLRTITYQ PAAGTKMCEQ ALGKACGGDS KKKRPQQPSE DGQPQAQVTP
        51 AAPHHHHHHS HSGPEISRII VDPTTGKRYC RGKVLGKGGF AKCYEMTDLT
       101 NNKVYAAKII PHSRVAKPHQ REKIDKEIEL HRLLHHKHVV QFYHYFEDKE
       151 NIYILLEYCS RRSMAHILKA RKVLTEPEVR YYLRQIVSGL KYLHEQEILH
       201 RDLKLGNFII NEAMELKVGD FGLAARLEPL EHRRRTICGT PNYLSPEVLN
       251 KQGHGCESDI WALGCVMYTM LLGRPPFETT NLKETYRCIR EARYTMPSSL
                               = =======
       301 LAPAKHLIAS MLSKNPEDRP SLDDIIRHDF FLQGFTPDRL SSSCCHTVPD
       351 FHLSSPAKNF FKKAAAALFG GKKDKARYND THNKVSKEDE DIYKLRHDLK
       401 KVSITQQPSK HRADEEPQPP PTTVARSGTS AVENKQQIGD AIRMIVRGTL
       451 GSCSSSSECL EDSTMGSVAD TVARVLRGCL ENMPEADCIP KEQLSTSFQW
       501 VTKWVDYSNK YGFGYQLSDH TVGVLFNNGA HMSLLPDKKT VHYYAELGQC
       551 SVFPATDAPE QFISQVTVLK YFSHYMEENL MDGGDLPSVT DIRRPRLYLL
       601 QWLKSDKALM MLFNDGTFQV NFYHDHTKII ICNQSEEYLL TYINEDRIST
       651 TFRLTTLLMS GCSLELKNRM EYALNMLLQR CN
HITS AT:
           270-277
REFERENCE
            1: 138:84325
L4
     ANSWER 5 OF 25 REGISTRY
                               COPYRIGHT 2003 ACS on STN
     481546-49-0 REGISTRY
RN
     Protein (swine Polo-like kinase Plk2 sequence homolog fragment)
CN
     (9CI) (CA INDEX NAME)
OTHER NAMES:
CN
     GenBank AAK27154
     GenBank AAK27154 (Translated from: GenBank AF348424)
CN
     Protein (Sus scrofa Polo-like kinase Plk2 sequence homolog fragment)
CN
CI
     MAN
SQL 316
         1 PEVLNKQGHG CESDIWALGC VMYTMLLGRP PFETTNLKET YRCIREARYT
SEQ
        51 MPSSLLAPAK HLIASMLSKN PEDRPSLDDI IRHEFFLOGF TPDRLSSSCC
       101 HTVPDFHLSS PAKNFFKKAA AALFGGKKDK ARYIDTHNRV SKEDEEIYKL
       151 RHDLKKTSIT QQPSKHRTDE ELQPPTTTVA RSGTPAVENK QQIGDAIRMI
       201 VRGTLGSCSS SSECLEDSTM GSVADTVARV LRGCLENMPE ADCIPKEQLS
       251 TSFQWVTKWV DYSNKYGFGY QLSDHTVGVL FNNGAHMSLL PDKKTVHYYA
       301 ELGQCSVFPA TDAPEQ
HITS AT:
           25-32
REFERENCE 1: 139:227956
    ANSWER 6 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
    480062-88-2 REGISTRY
RN
     (Protein for MGC:10589) (human clone MGC:10589 IMAGE:3831747) (9CI)
CN
     (CA INDEX NAME)
OTHER NAMES:
     GenBank AAH13879
CN
    GenBank AAH13879 (Translated from: GenBank BC013879)
CN
CI
    MAN
SQL 685
```

```
1 MELLRTITYQ PAASTKMCEQ ALGKGCGADS KKKRPPQPPE ESQPPQSQAQ
SEQ
        51 VPPAAPHHHH HHSHSGPEIS RIIVDPTTGK RYCRGKVLGK GGFAKCYEMT
       101 DLTNNKVYAA KIIPHSRVAK PHQREKIDKE IELHRILHHK HVVQFYHYFE
       151 DKENIYILLE YCSRRSMAHI LKARKVLTEP EVRYYLRQIV SGLKYLHEQE
       201 ILHRDLKLGN FFINEAMELK VGDFGLAARL EPLEHRRRTI CGTPNYLSPE
       251 VLNKQGHGCE SDIWALGCVM YTMLLGRPPF ETTNLKETYR CIREARYTMP
                                   =======
       301 SSLLAPAKHL IASMLSKNPE DRPSLDDIIR HDFFLQGFTP DRLSSSCCHT
       351 VPDFHLSSPA KNFFKKAAAA LFGGKKDKAR YIDTHNRVSK EDEDIYKLRH
       401 DLKKTSITQQ PSKHRTDEEL QPPTTTVARS GTPAVENKQQ IGDAIRMIVR
       451 GTLGSCSSSS ECLEDSTMGS VADTVARVLR GCLENMPEAD CIPKEOLSTS
       501 FQWVTKWVDY SNKYGFGYQL SDHTVGVLFN NGAHMSLLPD KKTVHYYAEL
       551 GQCSVFPATD APEQFISQVT VLKYFSHYME ENLMDGGDLP SVTDIRRPRL
       601 YLLQWLKSDK ALMMLFNDGT FQVNFYHDHT KIIICSQNEE YLLTYINEDR
       651 ISTTFRLTTL LMSGCSSELK NRMEYALNML LORCN
           273-280
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE
            1: 138:84320
     ANSWER 7 OF 25 REGISTRY
                               COPYRIGHT 2003 ACS on STN
L4
     449226-29-3 REGISTRY
RN
     249: PN: US20020110811 SEQID: 249 unclaimed protein (9CI) (CA INDEX
CN
     NAME)
     MAN
CI
SQL
     685
SEQ
         1 MELLRTITYO PAASTKMCEO ALGKGCGGDS KKKRPPOPPE ESOPPOSOAO
        51 VPPAAPHHHH HHSHSGPEIS RIIVDPTTGK RYCRGKVLGK GGFAKCYEMT
       101 DLTNNKVYAA KIIPHSRVAK PHQREKIDKE IELHRILHHK HVVQFYHYFE
       151 DKENIYILLE YCSRRSMAHI LKARKVLTEP EVRYYLRQIV SGLKYLHEQE
       201 ILHRDLKLGN FFINEAMELK VGDFGLAARL EPLEHRRRTI CGTPNYLSPE
       251 VLNKQGHGCE SDIWALGCVM YTMLLGRPPF ETTNLKETYR CIREARYTMP
                                   =======
       301 SSLLAPAKHL IASMLSKNPE DRPSLDDIIR HDFFLQGFTP DRLSSSCCHT
       351 VPDFHLSSPA KNFFKKAAAA LFGGKKDKAR YIDTHNRVSK EDEDIYKLRH
       401 DLKKTSITQQ PSKHRTDEEL QPPTTTVARS GTPAVENKQQ IGDAIRMIVR
       451 GTLGSCSSSS ECLEDSTMGS VADTVARVLR GCLENMPEAD CIPKEQLSTS
       501 FOWVTKWVDY SNKYGFGYOL SDHTVGVLFN NGAHMSLLPD KKTVHYYAEL
       551 GQCSVFPATD APEQFISQVT VLKYFSHYME ENLMDGGDLP SVTDIRRPRL
       601 YLLQWLKSDK ALMMLFNDGT FQVNFYHDHT KIIICSQNEE YLLTYINEDR
       651 ISTTFRLTTL LMSGCSSELK NRMEYALNML LQRCN
           273-280
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
            1: 137:181594
REFERENCE
L4
     ANSWER 8 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
     440684-40-2 REGISTRY
RN
     Protein (human NF-kB activating) (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
     39: PN: WO02053737 SEQID: 101 claimed protein
CN
CI
     MAN
SOL 685
```

```
SEQ
         1 MELLRTITYQ PAASTKMCEQ ALGKGCGADS KKKRPPQPPE ESQPPQSQAQ
        51 VPPAAPHHHH HHSHSGPEIS RIIVDPTTGK RYCRGKVLGK GGFAKCYEMT
       101 DLTNNKVYAA KIIPHSRVAK PHQREKIDKE IELHRILHHK HVVQFYHYFE
       151 DKENIYILLE YCSRRSMAHI LKARKVLTEP EVRYYLRQIV SGLKYLHEQE
       201 ILHRDLKLGN FFINEAMELK VGDFGLAARL EPLEHRRRTI CGTPNYLSPE
       251 VLNKOGHGCE SDIWALGCVM YTMLLGRPPF ETTNLKETYR CIREARYTMP
       301 SSLLAPAKHL IASMLSKNPE DRPSLDDIIR HDFFLQGFTP DRLSSSCCHT
       351 VPDFHLSSPA KNFFKKAAAA LFGGKKDKAR YIDTHNRVSK EDEDIYKLRH
       401 DLKKTSITQQ PSKHRTDEEL QPPTTTVARS GTPAVENKQQ IGDAIRMIVR
       451 GTLGSCSSSS ECLEDSTMGS VADTVARVLR GCLENMPEAD CIPKEQLSTS
       501 FQWVTKWVDY SNKYGFGYQL SDHTVGVLFN NGAHMSLLPD KKTVHYYAEL
       551 GOCSVFPATD APEOFISOVT VLKYFSHYME ENLMDGGDLP SVTDIRRPRL
       601 YLLQWLKSDK ALMMLFNDGT FQVNFYHDHT KIIICSQNEE YLLTYINEDR
       651 ISTTFRLTTL LMSGCSSELK NRMEYALNML LQRCN
           273-280
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE
            1: 137:74472
L4
     ANSWER 9 OF 25 REGISTRY
                               COPYRIGHT 2003 ACS on STN
RN
     439729-90-5 REGISTRY
     Ovary-associated antigen (human clone HAOSM08 fragment) (9CI) (CA
     INDEX NAME)
OTHER NAMES:
     3122: PN: W00200677 SEQID: 3124 claimed protein
CN
CI
     MAN
SQL
     753
         1 AVTWCRVSSL RPLPASPYIR LRRALSLAQV DRXGASRHQR QGCEDHGRLG
SEQ
        51 RVTAPRGWQR AVRGGKATME LLRTITYQPA ASTKMCEQAL GKGCGADSKK
       101 KRPPQPPEES QPPQSQAQVP PAAPHHHHHH SHSGPEISRI IVDPTTGKRY
       151 CRGKVLGKGG FAKCYEMTDL TNNKVYAAKI IPHSRVAKPH QREKIDKEIE
       201 LHRILHHKHV VQFYHYFEDK ENIYILLEYC SRRSMAHILK ARKVLTEPEV
       251 RYYLRQIVSG LKYLHEQEIL HRDLKLGNFF INEAMELKVG DFGLAARLEP
       301 LEHRRRTICG TPNYLSPEVL NKQGHGCESD IWALGCVMYT MLLGRPPFET
       351 TNLKETYRCI REARYTMPSS LLAPAKHLIA SMLSKNPEDR PSLDDIIRHD
       401 FFLOGFTPDR LSSSCCHTVP DFHLSSPAKN FFKKAAAALF GGKKDKARYI
       451 DTHNRVSKED EDIYKLRHDL KKTSITQQPS KHRTDEELQP PTTTVARSGT
       501 PAVENKOOIG DAIRMIVRGT LGSCSSSSEC LEDSTMGSVA DTVARVLRGC
       551 LENMPEADCI PKEQLSTSFQ WVTKWVDYSN KYGFGYQLSD HTVGVLFNNG
       601 AHMSLLPDKK TVHYYAELGQ CSVFPATDAP EQFISQVTVL KYFSHYMEEN
       651 LMDGGDLPSV TDIRRPRLYL LQWLKSDKAL MMLFNDGTFQ VNFYHDHTKI
       701 IICSQNEEYL LTYINEDRIS TTFRLTTLLM SGCSSELKNR MEYALNMLLQ
       751 RCN
           341-348
HITS AT:
           1: 137:58696
REFERENCE
     ANSWER 10 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
RN
     416847-48-8 REGISTRY
     L-Glutamic acid, L-methionyl-L-leucyl-L-leucylglycyl-L-lysyl-L-
CN
     prolyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
     47: PN: US20020049301 SEQID: 17 unclaimed sequence
CN
SQL 9
```

```
SEQ
         1 MLLGKPPFE
           ========
HITS AT:
           1-8
REFERENCE
            1:
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK

136:335268

ANSWER 11 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN L4

RN **416847-41-1** REGISTRY

L-Glutamic acid, glycyl-L-methionyl-L-leucyl-L-leucylglycyl-L-CN arginyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME) OTHER NAMES:

37: PN: US20020049301 SEQID: 57 unclaimed sequence CN SQL 10

SEQ 1 GMLLGRPPFE =======

HITS AT: 2-9

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 136:335268

ANSWER 12 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN L4

416847-01-3 REGISTRY RN

L-Serine, L-methionyl-L-leucyl-L-leucylglycyl-L-arginyl-L-prolyl-L-CN prolyl-L-phenylalanyl-L- α -glutamyl-L-threonyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

2: PN: US20020049301 SEQID: 19 unclaimed sequence CN SQL 11

SEQ 1 MLLGRPPFET S

______ HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

1: 136:335268 REFERENCE

ANSWER 13 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN L4

416847-00-2 REGISTRY RN

L-Serine, L-leucylglycyl-L-arginyl-L-prolyl-L-prolyl-L-phenylalanyl-CN $L-\alpha$ -glutamyl-L-threonyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

1: PN: US20020049301 SEQID: 18 unclaimed sequence CN SQL 9

SEQ 1 LGRPPFETS

HITS AT: 1-9

RELATED SEQUENCES AVAILABLE WITH SEQLINK

1: 136:335268 REFERENCE

> Shears 308-4994 Searcher :

Sey. 19

Seg. 15

```
ANSWER 14 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
    402712-46-3 REGISTRY
RN
    Kinase (phosphorylating), gene Snk protein (human gene Snk) (9CI)
CN
     (CA INDEX NAME)
OTHER NAMES:
    GenBank AAC14573
CN
    GenBank AAC14573 (Translated from: GenBank AF059617)
CN
CN
     Serum-inducible kinase (human)
CI
    MAN
SQL
    685
SEQ
         1 MELLRTITYQ PAASTKMCEQ ALGKGCGGDS KKKRPPQPPE ESQPPQSQAQ
        51 VPPAAPHHHH HHSHSGPEIS RIIVDPTTGK RYCRGKVLGK GGFAKCYEMT
       101 DLTNNKVYAA KIIPHSRVAK PHQREKIDKE IELHRILHHK HVVQFYHYFE
       151 DKENIYILLE YCSRRSMAHI LKARKVLTEP EVRYYLROIV SGLKYLHEOE
       201 ILHRDLKLGN FFINEAMELK VGDFGLAARL EPLEHRRRTI CGTPNYLSPE
       251 VLNKOGHGCE SDIWALGCVM YTMLLGRPPF ETTNLKETYR CIREARYTMP
                                   =======
       301 SSLLAPAKHL IASMLSKNPE DRPSLDDIIR HDFFLQGFTP DRLSSSCCHT
       351 VPDFHLSSPA KNFFKKAAAA LFGGKKDKAR YIDTHNRVSK EDEDIYKLRH
       401 DLKKTSITQQ PSKHRTDEEL QPPTTTVARS GTPAVENKQQ IGDAIRMIVR
       451 GTLGSCSSSS ECLEDSTMGS VADTVARVLR GCLENMPEAD CIPKEQLSTS
       501 FQWVTKWVDY SNKYGFGYQL SDHTVGVLFN NGAHMSLLPD KKTVHYYAEL
       551 GQCSVFPATD APEQFISQVT VLKYFSHYME ENLMDGGDLP SVTDIRRPRL
       601 YLLQWLKSDK ALMMLFNDGT FQVNFYHDHT KIIICSQNEE YLLTYINEDR
       651 ISTTFRLTTL LMSGCSSELK NRMEYALNML LQRCN
           273-280
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE
            1: 138:347
            2: 136:211644
REFERENCE
     ANSWER 15 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
     382721-00-8 REGISTRY
RN
    Kinase (phosphorylating), gene Snk protein (Xenopus laevis gene
CN
     Plx2) (9CI) (CA INDEX NAME)
OTHER NAMES:
    GenBank AAL30175
CN
    GenBank AAL30175 (Translated from: GenBank AF357840)
CN
    Polo-like kinase 2 (Xenopus laevis gene Plx2)
CN
CI
     MAN
SQL
    666
         1 MELLRNIAYQ PSSGKMCEQ ALGRVCDPDR RWKVPGDGEP IHHSCSATDV
SEQ
        51 SRIITDPGTG RRYCRGKVLG KGGFAKCYEM KDLTTNKIYA AKIIPHSRVS
       101 KPHOREKIDK EIELHRTLNH RHVVQFYHYF EDKENIYILM EYCGRRSMAH
       151 ILKTRKVLTD PEVRYYLKQI VSGLKYLHEQ EILHRDLKLG NFFINESMEL
       201 KVGDFGLAAR LEPLEQRRRT ICGTPNYLSP EVLNKQGHGC ESDIWALGCV
       251 MYTMLLGRPP FETTNLKETY KCIREARYSL PSSLMTSAKH LIASMLSRNP
              301 EDRPSLDEIT OHDFFTOGFT PERLPTTCCH TAPDFHLSSP AKNFFKKAAA
       351 ALFGGKKEKS KYLDNHNKLP KEDEVIYKLR QGLQKNTISH QRHNPRTDEE
       401 IKTISKSDVL VERADKOHMG DTIHMIVRGT LGSCSSSSEC LEDSTMGTVA
       451 DTVARVLKDC LEKMPDADAI PKEQIDTSFH WVTKWVDYSN KYGFGYQLSD
       501 HTVGVLFNNG AHMSFLPDKK TVHYYAELGQ CSVFPATEAP EQFISQVTVL
       551 KYFSHYMEEN LMDGGDLPSV TDVCRPRLYL LQWLKSDKAL MMLFNDGTFQ
```

```
601 VNFYHDHTKI IIANQNDEYV LTYINEDRMS TTFHLSTLLI SGGSSDLKNR
       651 MEYALNMLLQ RCNEVA
HITS AT:
           254-261
REFERENCE
            1: 136:51338
     ANSWER 16 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
     326937-52-4 REGISTRY
RN
     Protein (human clone PLACE1011923) (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
     1057: PN: EP1074617 SEQID: 15726 claimed protein
CN
CI
     MAN
SQL
    469
         1 MELKVGDFGL AARLEPLEHR RRTICGTPNY LSPEVLNKQG HGCESDIWAL
SEQ
        51 GCVMYTMLLG RPPFETTNLK ETYRCIREAR YTMPSSLLAP AKHLIASMLS
                 ======
       101 KNPEDRPSLD DIIRHDFFLO GFTPDRLSSS CCHTVPDFHL SSPAKNFFKK
       151 AAAALFGGKK DKARYIDTHN RVSKEDEDIY KLRHDLKKTS ITQQPSKHRT
       201 DEELQPPTTT VARSGTPAVE NKQQIGDAIR MIVRGTLGSC SSSSECLEDS
       251 TMGSVADTVA RVLRGCLENM PEADCIPKEQ LSTSFQWVTK WVDYSNKYGF
       301 GYQLSDHTVG VLFNNGAHMS LLPDKKTVHY YAELGQCSVF PATDAPEQFI
       351 SQVTVLKYFS HYMEENLMDG GDLPSVTDIR RPRLYLLQWL KSDKALMMLF
       401 NDGTFQVNFY HDHTKIIICS QNEEYLLTYI NEDRISTTFR LTTLLMSGCS
       451 SELKNRMEYA LNMLLQRCN
           57-64
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE
            1: 134:188986
     ANSWER 17 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
     220748-32-3 REGISTRY
RN
     Kinase (phosphorylating), protein, Snk (human) (9CI)
                                                           (CA INDEX
CN
     NAME)
CI
     MAN
SQL
     685
SEQ
         1 MELLRTITYQ PAASTKMCEQ ALGKGCGADS KKKRPPQPPE ESQPPQSQAQ
        51 VPPAAPHHHH HHSHSGPEIS RIIVDPTTGK RYCRGKVLGK GGFAKCYEMT
       101 DLTNNKVYAA KIIPHSRVAK PHOREKIDKE IELHRILHHK HVVOFYHYFE
       151 DKENIYILLE YCSRRSMAHI LKARKVLTEP EVRYYLRQIV SGLKYLHEQE
       201 ILHRDLKLGN FFINEAMELK VGDFGLAARL EPLEHRRRTI CGTPNYLSPE
       251 VLNKQGHGCE SDIWALGCVM YTMLLGRPPF ETTNLKETYR CIREARYTMP
       301 SSLLAPAKHL IASMLSKNPE DRPSLDDIIR HDFFLOGFTP DRLSSSCCHT
       351 VPDFHLSSPA KNFFKKAAAA LFGGKKDKAR YIDTHNRVSK EDEDIYKLRH
       401 DLKKTSITQQ PSKHRTDEEL QPPTTTVARS GTPAVENKQQ IGDAIRMIVR
       451 GTLGSCSSSS ECLEDSTMGS VADTVARVLR GCLENMPEAD CIPKEQLSTS
       501 FOWVTKWVDY SNKYGFGYOL SDHTVGVLFN NGAHMSLLPD KKTVHYYAEL
       551 GQCSVFPATD APEQFISQVT VLKYFSHYME ENLMDGGDLP SVTDIRRPRL
       601 YLLQWLKSDK ALMMLFNDGT FQVNFYHDHT KIIICSQNEE YLLTYINEDR
       651 ISTTFRLTTL LMSGCSSELK NRMEYALNML LQRCN
HITS AT: 273-280
**RELATED SEQUENCES AVAILABLE WITH SEOLINK**
REFERENCE 1: 130:192783
```

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L4
     ANSWER 18 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
     218611-29-1 REGISTRY
RN
     Kinase (phosphorylating), protein (human clone 39043
CN
     disease-associated isoform DAPK-1) (9CI) (CA INDEX NAME)
CI
     MAN
SQL
     685
SEQ
         1 MELLRTITYQ PAASTKMCEQ ALGKGCGADS KKKRPPQPPE ESQPPQSQAQ
        51 VPPAAPHHHH HHSHSGPEIS RIIVDPTTGK RYCRGKVLGK GGFAKCYEMT
       101 DLTNNKVYAA KIIPHSRVAK PHQREKIDKE IELHRILHHK HVVQFYHYFE
       151 DKENIYILLE YCSRRSMAHI LKARKVLTEP EVRYYLRQIV SGLKYLHEQE
       201 ILHRDLKLGN FFINEAMELK VGDFGLAARL EPLEHRRRTI CGTPNYLSPE
       251 VLNKQGHGCE SDIWALGCVM YTMLLGRPPF ETTNLKETYR CIREARYTMP
                                   ======
       301 SSLLAPAKHL IASMLSKNPE DRPSLDDIIR HDFFLQGFTP DRLSSSCCHT
       351 VPDFHLSSPA KNFFKKAAAA LFGGKKDKAR YIDTHNRVSK EDEDIYKLRH
       401 DLKKTSITQQ PSKHRTDEEL OPPTTTVARS GTPAVENKQQ IGDAIRMIVR
       451 GTLGSCSSSS ECLEDSTMGS VADTVARVLR GCLENMPEAD CIPKEQLSTS
       501 FQWVTKWVDY SNKYGFGYQL SDHTVGVLFN NGAHMSLLPD KKTAHYYAEL
       551 GQCSVFPATD APEQFISQVT VLKYFSHYME ENLMDGGDLP SVTDIRRPRL
       601 YLLQWLKSDK ALMMLFNDGT FQVNFYHDHT KIIICSQNEE YLLTYINEDR
       651 ISTTFRLTTL LMSGCSSELK NRMEYALNML LORCN
HITS AT:
           273-280
REFERENCE
            1: 130:77973
     ANSWER 19 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
RN
     216490-49-2 REGISTRY
    L-\alpha-Glutamine, N-(1-oxotetradecyl)glycyl-L-methionyl-L-leucyl-
CN
    L-leucylglycyl-L-arginyl-L-prolyl-L-prolyl-L-phenylalanyl-,
    phenylmethyl ester (9CI) (CA INDEX NAME)
SQL
    10
         1 GMLLGRPPFE
SEQ
            =======
           2-9
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
            1: 130:22236
REFERENCE
    ANSWER 20 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
    216489-81-5 REGISTRY
RN
    L-Serinamide, N-acetyl-L-methionyl-L-leucyl-L-leucylglycyl-L-arginyl-
CN
    L-prolyl-L-prolyl-L-phenylalanyl-L-α-glutamyl-L-threonyl-,
     phenylmethyl ester (9CI) (CA INDEX NAME)
SQL 11
                                                                   Se-4. 19
SEQ
         1 MLLGRPPFET S
           1-11
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
           1: 130:22236
REFERENCE
    ANSWER 21 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
```

Searcher:

Shears

308-4994

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216489-79-1 REGISTRY
RN
     L-Serinamide, N-acetyl-L-leucylglycyl-L-arginyl-L-prolyl-L-prolyl-L-
CN
     phenylalanyl-L-\alpha-glutamyl-L-threonyl-, phenylmethyl ester
           (CA INDEX NAME)
     (9CI)
SQL
SEQ
         1 LGRPPFETS
           =======
                                                                     Sey. 18
HITS AT:
           1-9
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
                130:22236
REFERENCE
            1:
     ANSWER 22 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
    216489-77-9 REGISTRY
RN
    L-α-Glutamine, N-acetyl-L-methionyl-L-leucyl-L-leucylglycyl-L-
CN
     lysyl-L-prolyl-L-prolyl-L-phenylalanyl-, phenylmethyl ester (9CI)
     (CA INDEX NAME)
SQL 9
SEQ
         1 MLLGKPPFE
HITS AT:
           1-8
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE
            1: 130:22236
    ANSWER 23 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
    216489-75-7 REGISTRY
RN
    L-Phenylalaninamide, N-acetyl-L-methionyl-L-leucyl-L-leucylglycyl-L-
     lysyl-L-prolyl-L-prolyl- (9CI) (CA INDEX NAME)
                                                                     Seg. 6
OTHER NAMES:
     12: PN: US20020049301 SEQID: 16 claimed protein
CN
SQL 8
SEQ
         1 MLLGKPPF
           =======
HITS AT:
           1-8
REFERENCE
            1:
               136:335268
            2: 130:22236
REFERENCE
    ANSWER 24 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
L4
    216489-73-5 REGISTRY
RN
    L-α-Glutamine, N-acetyl-L-methionyl-L-leucyl-L-leucylglycyl-L-
CN
     arginyl-L-prolyl-L-phenylalanyl-, phenylmethyl ester (9CI)
     (CA INDEX NAME)
OTHER NAMES:
     11: PN: US20020049301 SEQID: 15 claimed protein
CN
SQL 9
SEQ
         1 MLLGRPPFE
HITS AT:
           1-8
```

REFERENCE 1: 136:335268

REFERENCE 2: 130:22236

- L4 ANSWER 25 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN
- RN **148466-70-0** REGISTRY
- CN Kinase (phosphorylating), protein (mouse clone 2 isoenzyme Snk

reduced) (9CI) (CA INDEX NAME)

CI MAN SQL 682

SEQ 1 MELLRTITYQ PAAGTKMCEQ ALGKACGGDS KKKRPQQPSE DGQPQAQVTP

- 51 AAPHHHHHHS HSGPEISRII VDPTTGKRYC RGKVLGKGGF AKCYEMTDLT
 - 101 NNKVYAAKII PHSRVAKPHQ REKIDKEIEL HRLLHHKHVV QFYHYFEDKE
 - 151 NIYILLEYCS RRSMAHILKA RKVLTEPEVR YYLRQIVSGL KYLHEQEILH 201 RDLKLGNFFI NEAMELKVGD FGLAARLEPL EHRRRTICGT PNYLSPEVLN
 - 251 KQGHGCESDI WALGCVMYTM LLGRPPFETT NLKETYRCIR EARYTMPSSL

= =======

- 301 LAPAKHLIAS MLSKNPEDRP SLDDIIRHDF FLQGFTPDRL SSSCCHTVPD
- 351 FHLSSPAKNF FKKAAAALFG GKKDKARYND THNKVSKEDE DIYKLRHDLK
- 401 KVSITQQPSK HRADEEPQPP PTTVARSGTS AVENKQQIGD AIRMIVRGTL
- 451 GSCSSSECL EDSTMGSVAD TVARVLRGCL ENMPEADCIP KEQLSTSFQW
- 501 VTKWVDYSNK YGFGYQLSDH TVGVLFNNGA HMSLLPDKKT VHYYAELGQC
- 551 SVFPATDAPE QFISQVTVLK YFSHYMEENL MDGGDLPSVT DIRRPRLYLL
- 601 QWLKSDKALM MLFNDGTFQV NFYHDHTKII ICNQSEEYLL TYINEDRIST
- 651 TFRLTTLLMS GCSLELKNRM EYALNMLLQR CN

HITS AT: 270-277

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 119:44118

FILE 'HOME' ENTERED AT 14:29:31 ON 14 NOV 2003